Advanced Excel

tutorialspoint

SIMPLYEASYLEARNING

www.tutorialspoint.com

https://www.facebook.com/tutorialspointindia

https://twitter.com/tutorialspoint

About the Tutorial

Advanced Excel is a comprehensive tutorial that provides a good insight into the latest and advanced features available in Microsoft Excel 2013. It has plenty of screenshots that explain how to use a particular feature, in a step-by-step manner.

Audience

This tutorial has been designed for all those readers who depend heavily on MS-Excel to prepare charts, tables, and professional reports that involve complex data. It will help all those readers who use MS-Excel regularly to analyze data.

Prerequisites

The readers of this tutorial are expected to have a good prior understanding of the basic features available in Microsoft Excel.

Copyright & Disclaimer

Table of Contents

About the Tutorial i
Audience i
Prerequisites i
Copyright & Disclaimer i
Table of Contents ii

PART 1: EXCEL NEW FEATURES 1

1. Excel – Chart Recommendations 2
Change in Charts Group 2
Chart Recommendations 3
Fine Tune Charts Quickly 5
Select / De-select Chart Elements 6
Format Style 7
Format Color 8
Filter Data being displayed on the Chart 9

2. Excel – Format Charts 12
Format Axis 12
Provision for Combo Charts 15

3. Excel – Chart Design 17
Ribbon of Chart Tools 17
Quick Layout 19
Change Colors 20
Chart Styles 20
Switch Row / Column 21
Select Data 22
Change Chart Type 23
Move Chart 24

4. Excel – Richer Data Labels 26
Formatting Data Labels 26
Look of the Data Labels 30
Shape of a Data Label 31
Resize a Data Label 32
Add a Field to a Data Label 32

5. Excel – Leader Lines 35
Add a Leader Line 35
Format Leader Lines 36

6. Excel – New Functions 38
Functions by Category 38
New Functions in Excel 2013 39
User Defined Functions in Add-ins 42
Web Functions 42

PART 2: FUNDAMENTAL DATA ANALYSIS 43

7. Instant Data Analysis 44
Quick Analysis Features 44
Quick Analysis of Data 44
Conditional Formatting 46
Charts 50
Totals 52
Tables 58
Sparklines 60

8. Excel – Sorting Data by Color 62

9. Excel – Slicers 65

10. Excel – Flash Fill 68

PART 3: POWERFUL DATA ANALYSIS – INTRODUCTION 72

11. Excel – PivotTable Recommendations 73
Create a PivotTable to analyze external data 74
Connect to a new external data source 76
Using the Field List option 78
PivotTables based on Multiple Tables 82

PART 4: POWERFUL DATA ANALYSIS – 1 85

12. Excel – Data Model in Excel 86
Explore Data Using PivotTable 89
Create Relationship between Tables 91

13. Excel – Power Pivot 95
Data Model using Calculated Columns 99
Relationship using calculated columns 103

14. Excel – External Data Connection 105
Update the Data Connections 106
Automatically Refresh Data 107
Automatically refresh data at regular intervals 109
Enable Background Refresh 109

15. Excel – Pivot Table Tools 111
Source Data for a PivotTable 111
Change to a Different External Data Source. 112
Delete a PivotTable 114
Using the Timeline 117
Use a Timeline to Filter by Time Period 119
Create a Standalone PivotChart 122

PART 5: POWERFUL DATA ANALYSIS – 2 124

16. Excel – Power View 125
Create a Power View Sheet 125

17. Excel – Visualizations 129
Create Charts and other Visualizations 129
Visualization – Matrix 130
Visualization – Card 131
Visualization – Charts 132

18. Excel – Pie Charts 138
Bubble and Scatter Charts 140
Maps 143
Multiples: A Set of Charts with the Same Axes 145
Visualization – Tiles 147

19. Power View – Additional Features 150
Modify the internal Data Model 150

20. Excel – Power View in Services 155
Key Performance Indicators (KPIs) 155
Hierarchies 156
Drill-Up and Drill-Down 157

21. Excel – Format Reports 161
Hyperlinks 173
Printing 173
Support for right-to-left languages 173

22. Excel – Handling Integers 176
Power Query 177
Power BI Desktop 178

PART 6: OTHER FEATURES 181

23. Excel – Templates 182

24. Excel – Inquire 186
Ensure Inquire Add-in is Active 186
Compare Two Workbooks 188

25. Excel – Workbook Analysis 194
Diagrams 198
Workbook Relationship 199
Worksheet Relationship 200
Cell Relationship 201
Clean Excess Cell Formatting 203

26. Excel – Manage Passwords 205
Embed Worksheet Data in a Web Page 207

27. Excel – File Formats 208
Save a Workbook in another File Format 208
Excel File Formats 208
Text File Formats 209
Other File Formats 210
File Formats that Use the Clipboard 213
File Formats not Supported in Excel 2013 214

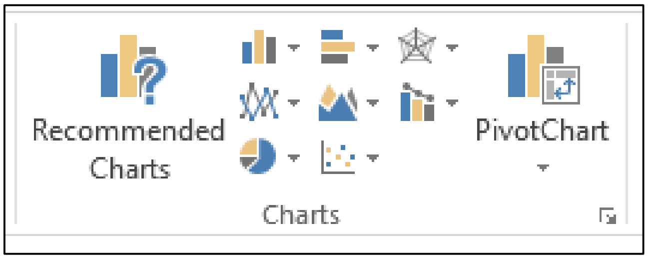
28. Excel – Discontinued Features 215
Discontinued / Changed features 215
Save Workspace 215
New from Existing 215
Save as Template 216
Split Box Control 219
Blank Workbook 220
Save Options 221
Microsoft Clip Organizer 222
MS Office Picture Manager 222
Exit option 222
Browser View Options 224
Individual Data Series 225
Pyramid and Cone Chart Types 225

Part 1: Excel New Features

1. EXCEL – CHART RECOMMENDATIONS

Change in Charts Group

The Charts Group on the Ribbon in MS Excel 2013 looks as follows:



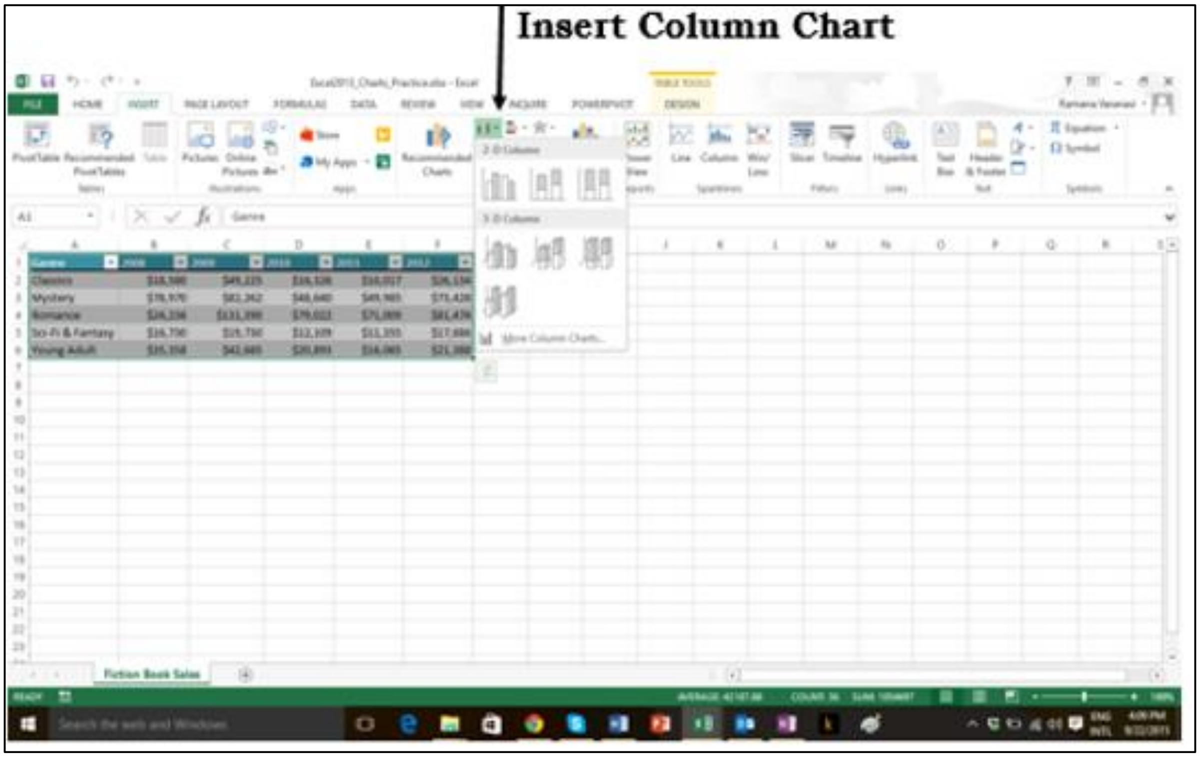
You can observe that:

- The subgroups are clubbed together.
- A new option **'Recommended Charts'** is added.

Let us create a chart. Follow the steps given below.

Step 1: Select the data for which you want to create a chart.

Step 2: Click on the **Insert Column Chart** icon as shown below.



When you click on the **Insert Column chart**, types of **2-D Column Charts**, and **3-D Column Charts** are displayed. You can also see the option of More **Column Charts**.

Step 3: If you are sure of which chart you have to use, you can choose a Chart and proceed.

If you find that the one you pick is not working well for your data, the new **Recommended Charts** command on the **Insert** tab helps you to create a chart quickly that is just right for your data.

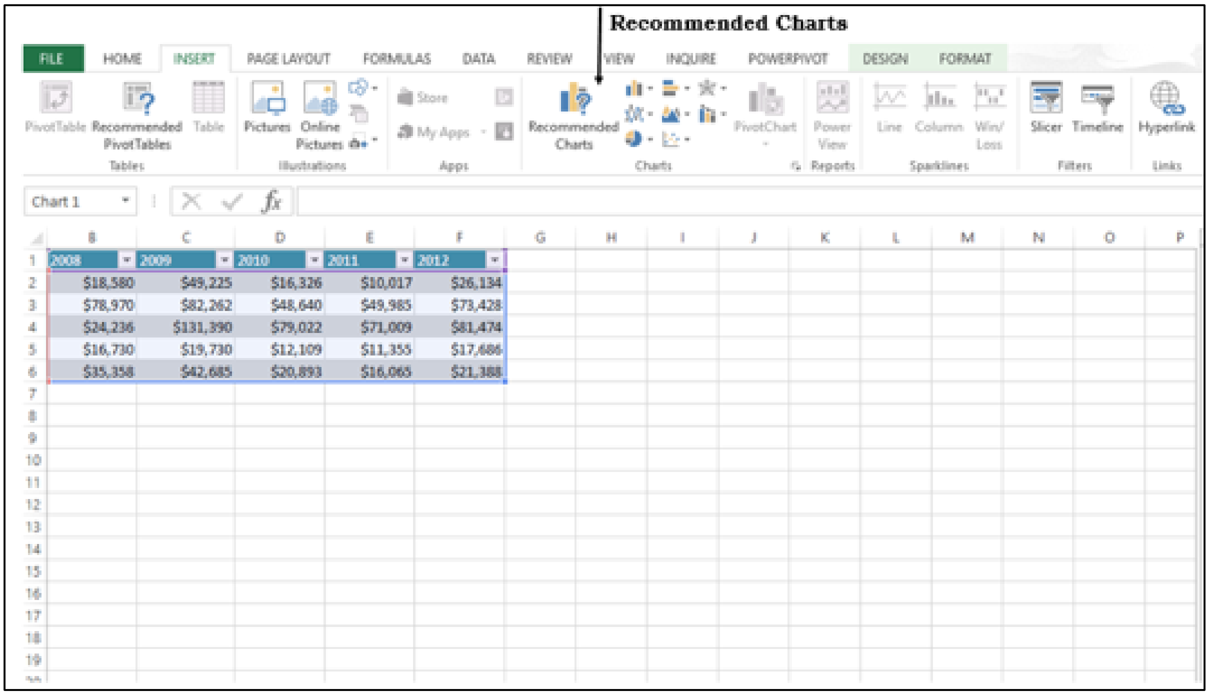


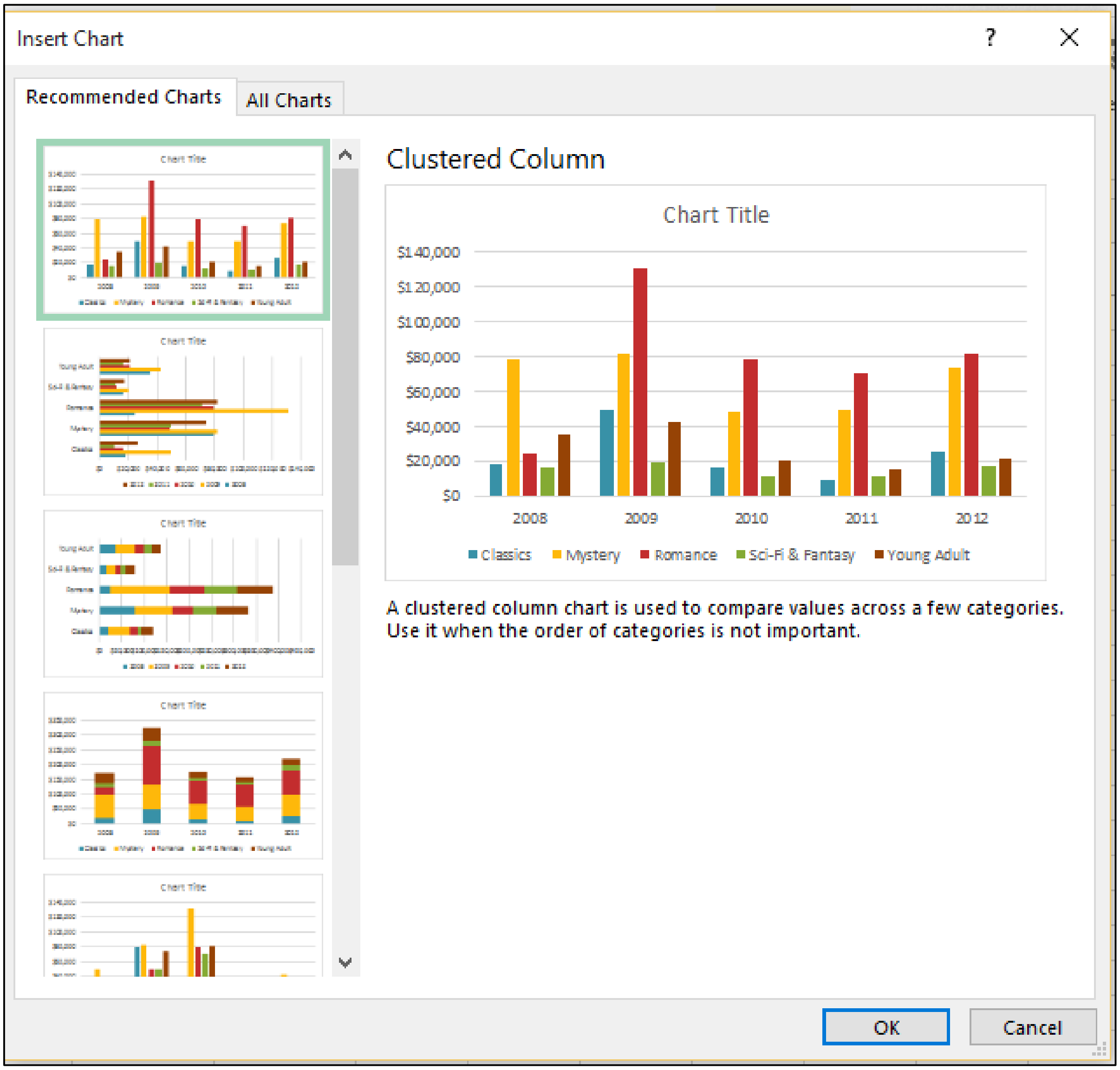
Chart Recommendations

Let us see the options available under this heading. (use another word for heading)

Step 1: Select the Data from the worksheet.

Step 2: Click on **Recommended Charts**.

The following window displaying the charts that suit your data will be displayed.



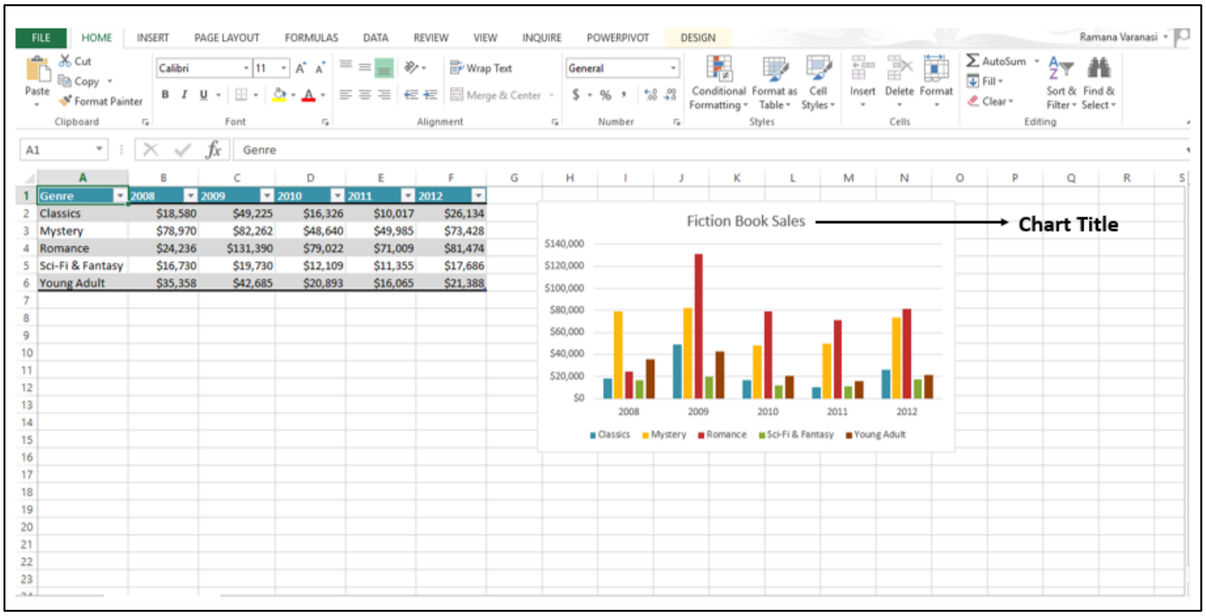
Step 3: As you browse through the **Recommended Charts**, you will see the preview on the right side.

Step 4: If you find the chart you like, click on it.

Step 5: Click on the **OK** button**.** If you do not see a chart you like, click on **All Charts** to see all the available chart types.

Step 6: The chart will be displayed in your worksheet.

Step 7: Give a **Title** to the chart.



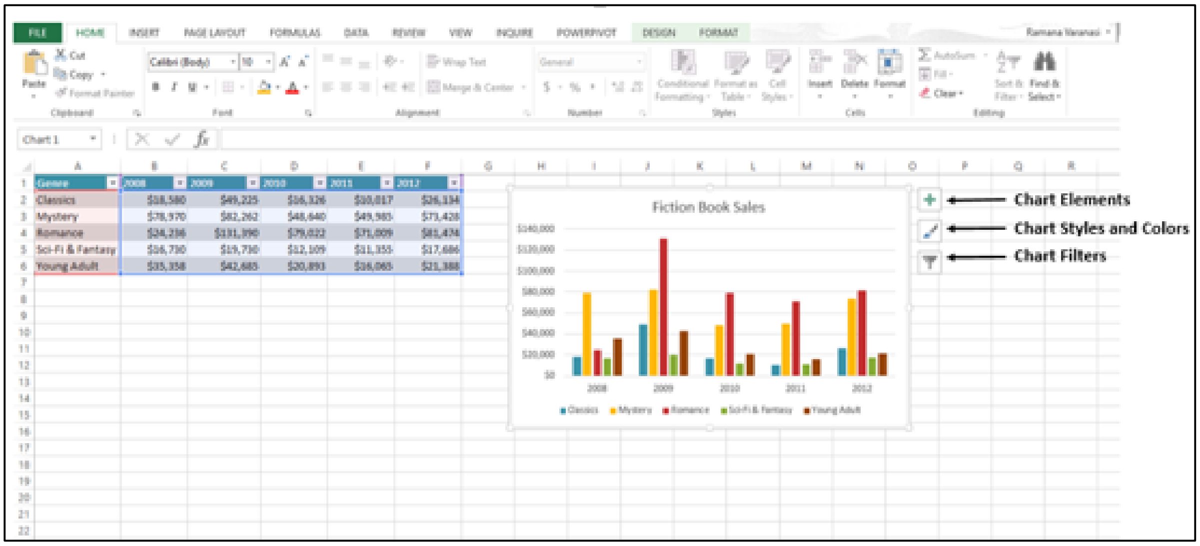
Fine Tune Charts Quickly

Click on the Chart. Three Buttons appear next to the upper-right corner of the chart. They are:

- Chart Elements
- Chart Styles and Colors, and
- Chart Filters

You can use these buttons-

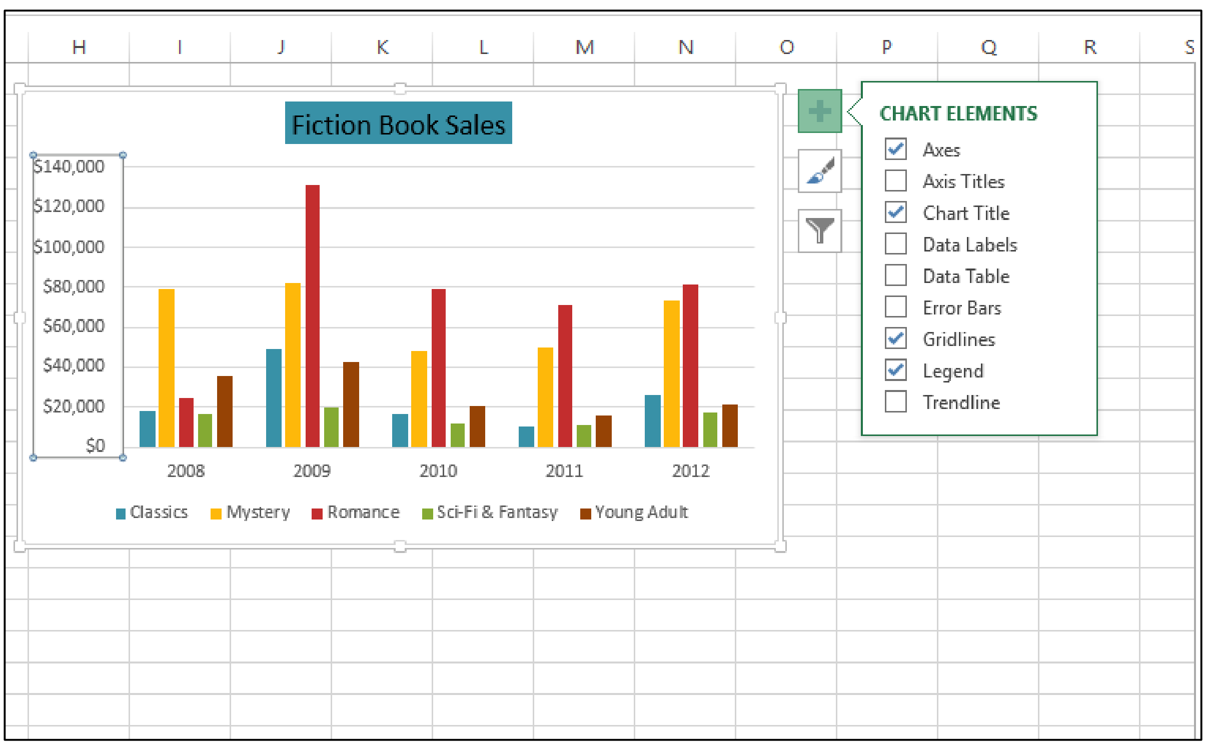
- To add chart elements like axis titles or data labels
- To customize the look of the chart, or
- To change the data that’s shown in the chart



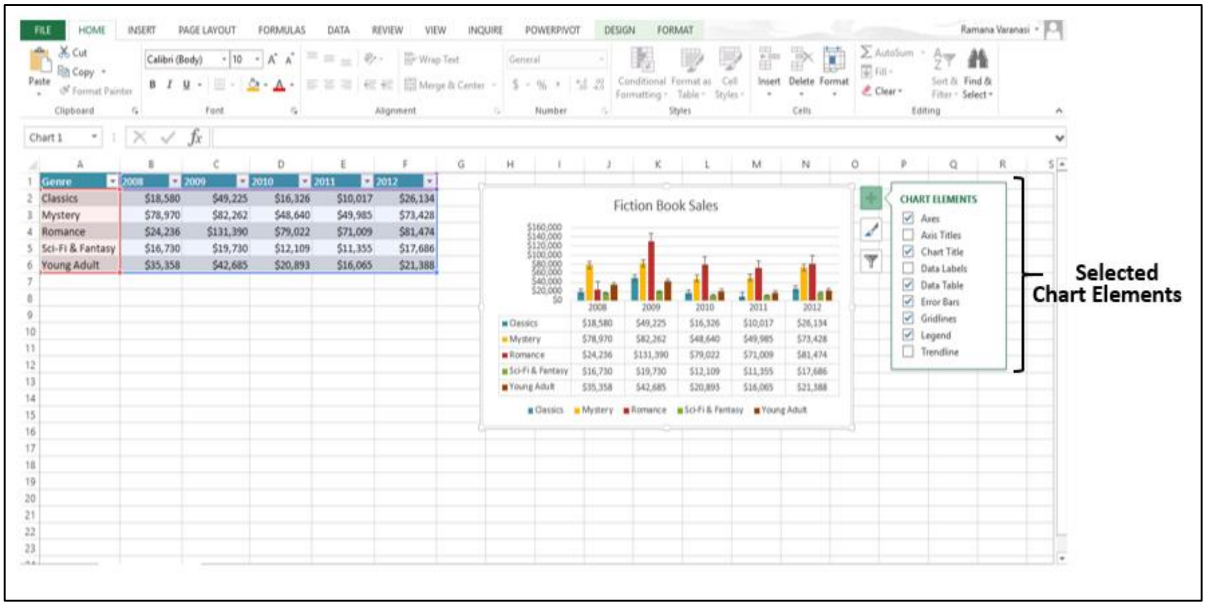
Select / De-select Chart Elements

Step 1: Click on the Chart. Three Buttons will appear at the upper-right corner of the chart.

Step 2: Click on the first button **Chart Elements**. A list of chart elements will be displayed under the **Chart Elements** option.



Step 3: Select / De-select **Chart Elements** from the given List. Only the selected chart elements will be displayed on the Chart.

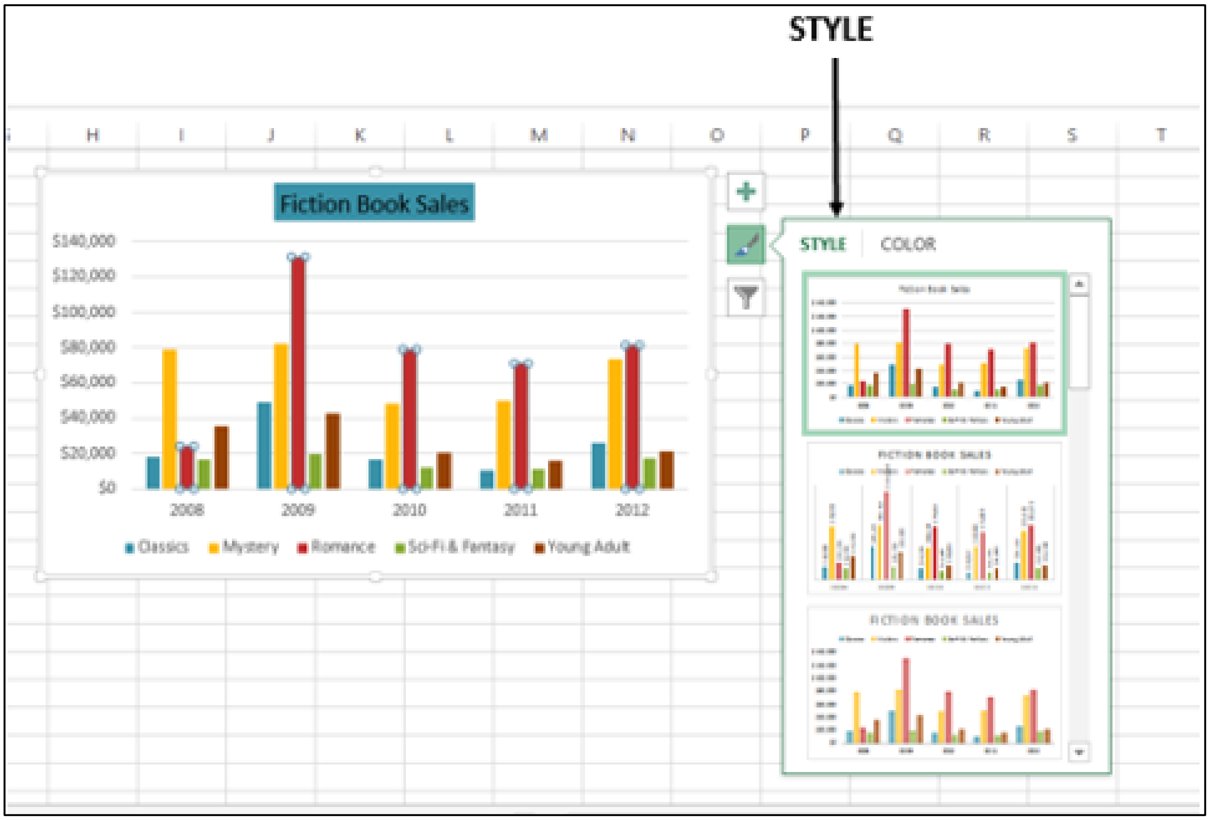


Format Style

Step 1: Click on the **Chart**. Three Buttons will appear at the upper-right corner of the chart.

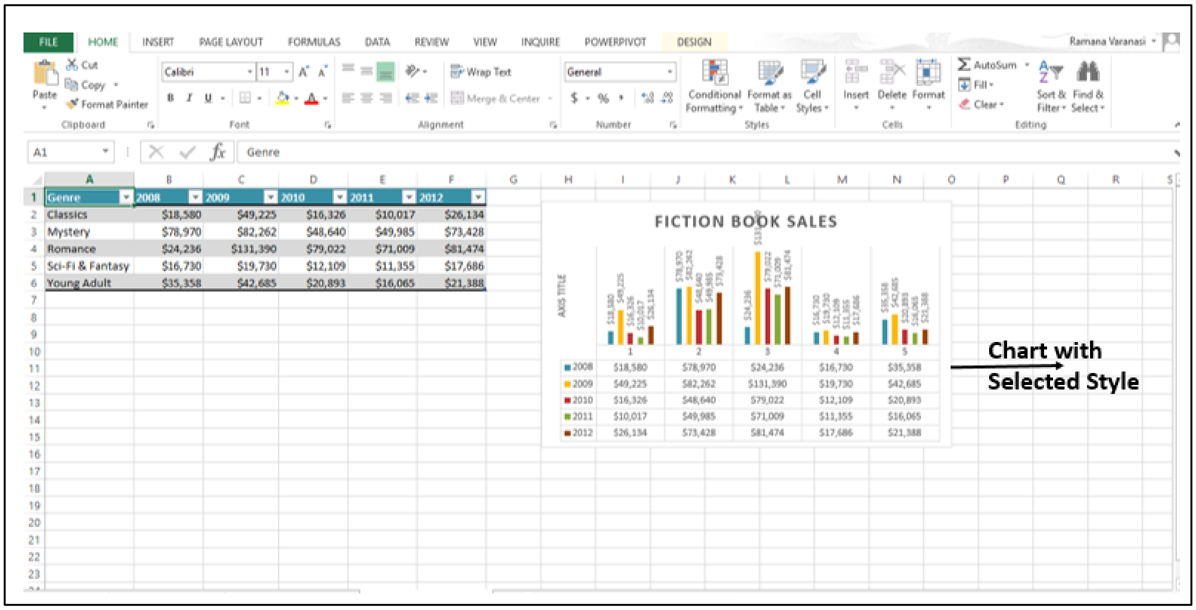
Step 2: Click on the second button **Chart Styles.** A small window opens with different options of **STYLE** and **COLOR** as shown in the image given below**.**

Step 3: Click on **STYLE**. Different options of Style will be displayed.



Step 4: Scroll down the gallery. The live preview will show you how your chart data will look with the currently selected style.

Step 5: Choose the Style option you want. The Chart will be displayed with the selected Style as shown in the image given below.

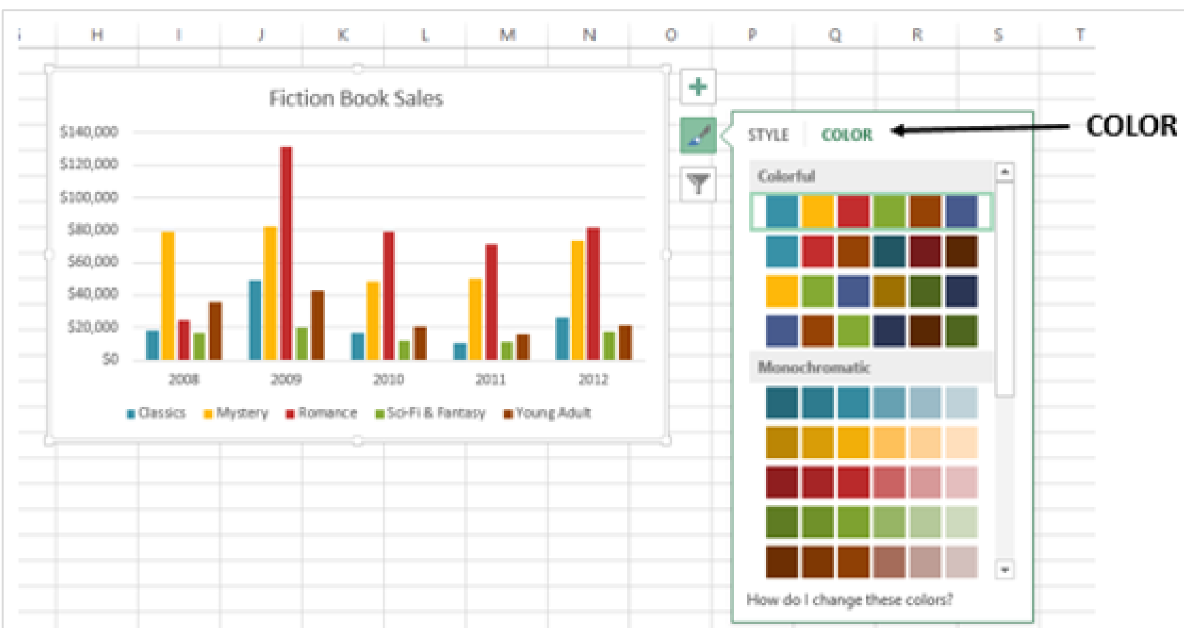


Format Color

Step 1: Click on the **Chart**. Three Buttons will appear at the upper-right corner of the chart.

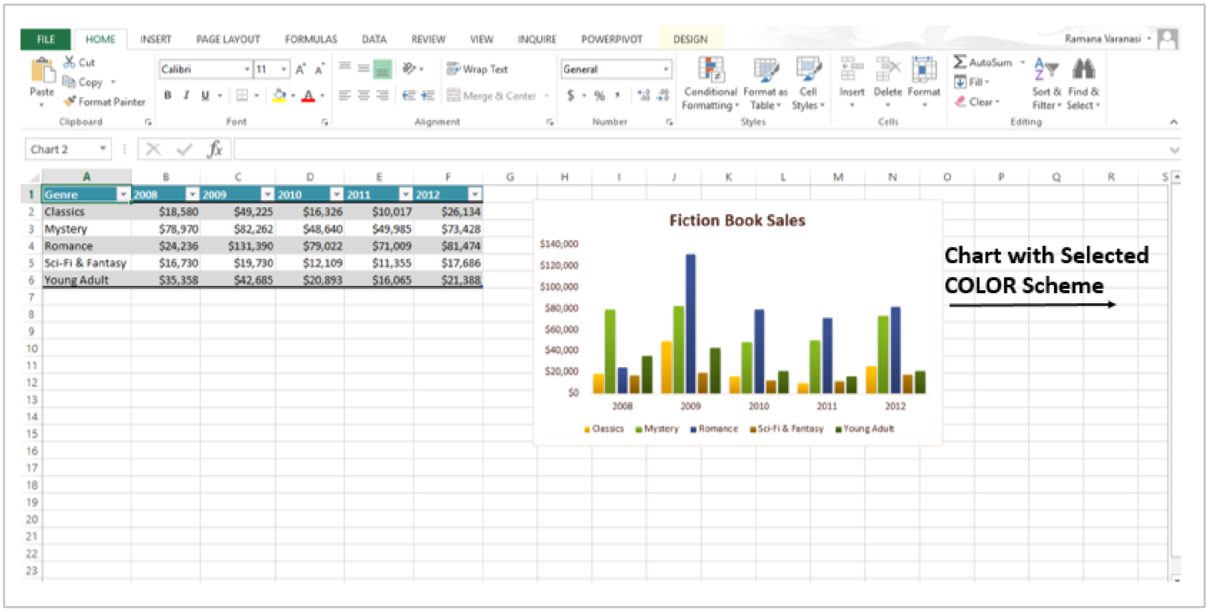
Step 2: Click on Chart Styles. The **STYLE** and **COLOR** window will be displayed.

Step 3: Click on the **COLOR** tab. Different Color Schemes will be displayed.



Step 4: Scroll down the options. The live preview will show you how your chart data will look with the currently selected color scheme.

Step 5: Pick the color scheme you want. Your Chart will be displayed with the selected Style and Color scheme as shown in the image given below.



You can change color schemes from Page Layout Tab also.

Step 1: Click the tab **Page Layout**.

Step 2: Click on the **Colors** button.

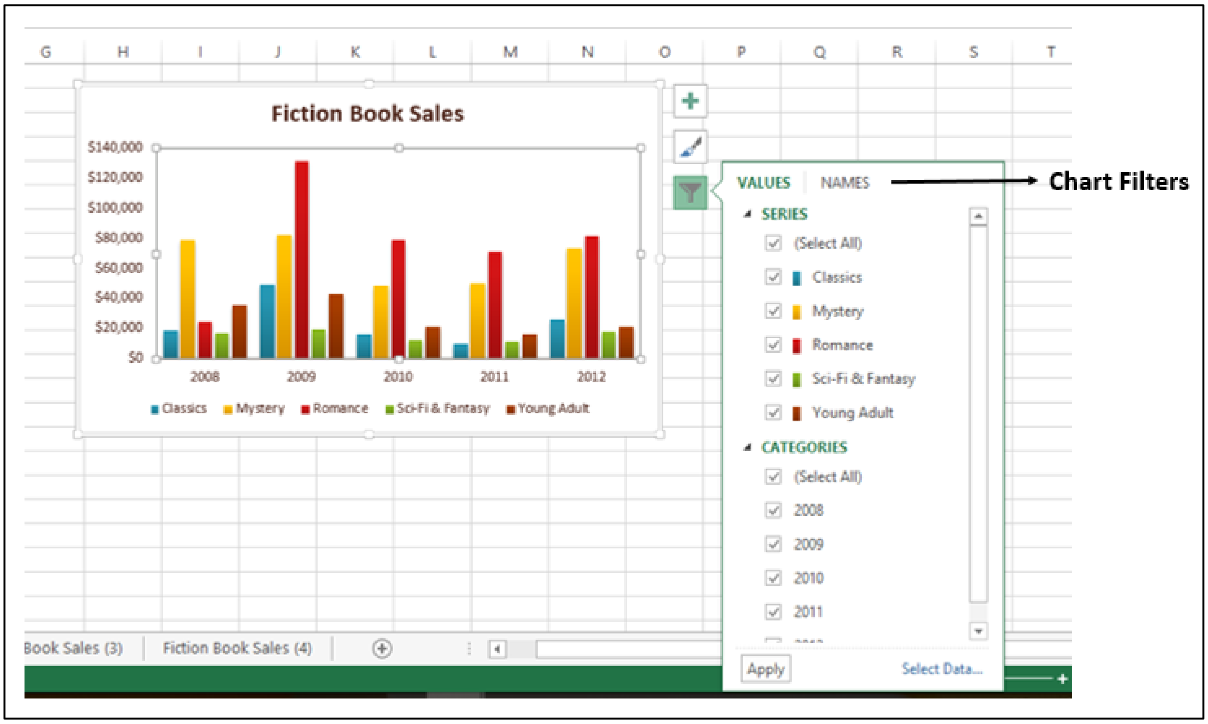
Step 3: Pick the color scheme you like. You can also customize the Colors and have your own color scheme.

Filter Data being displayed on the Chart

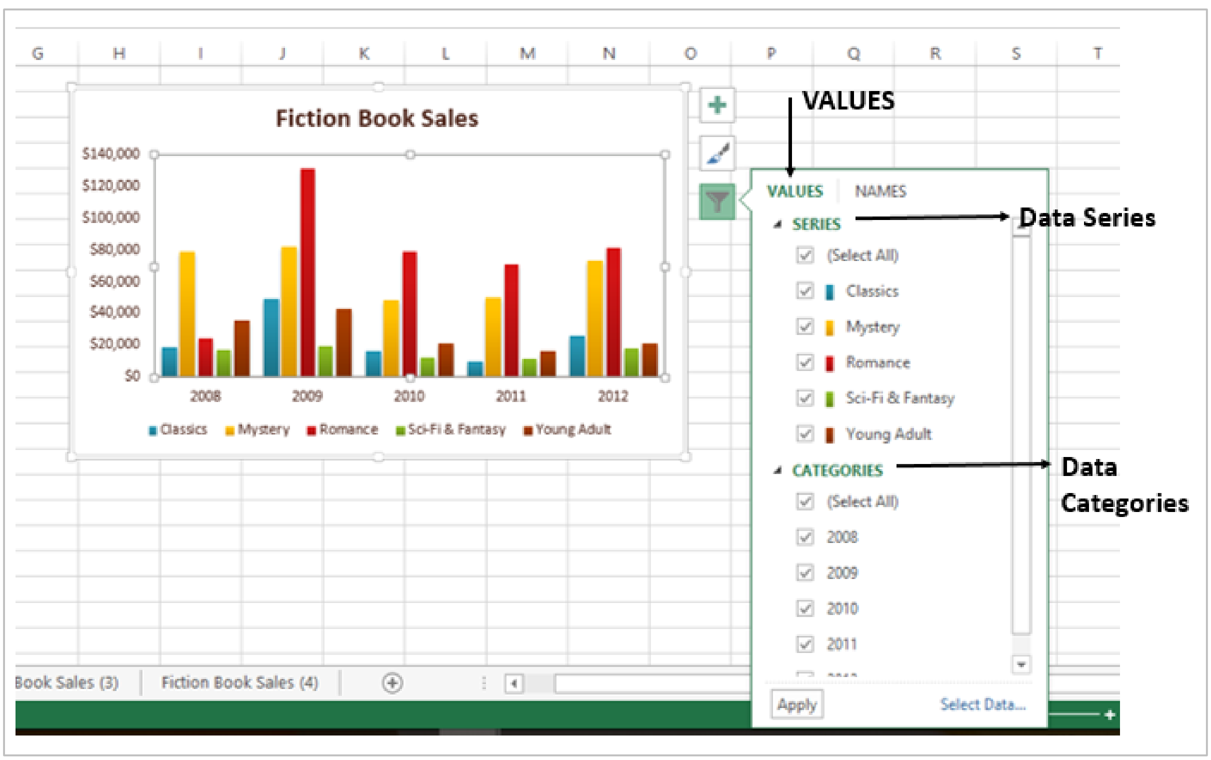
Chart Filters are used to edit the data points and names that are visible on the chart being displayed, dynamically.

Step 1: Click on the Chart. Three Buttons will appear at the upper-right corner of the chart.

Step 2: Click on the third button **Chart Filters** as shown in the image.

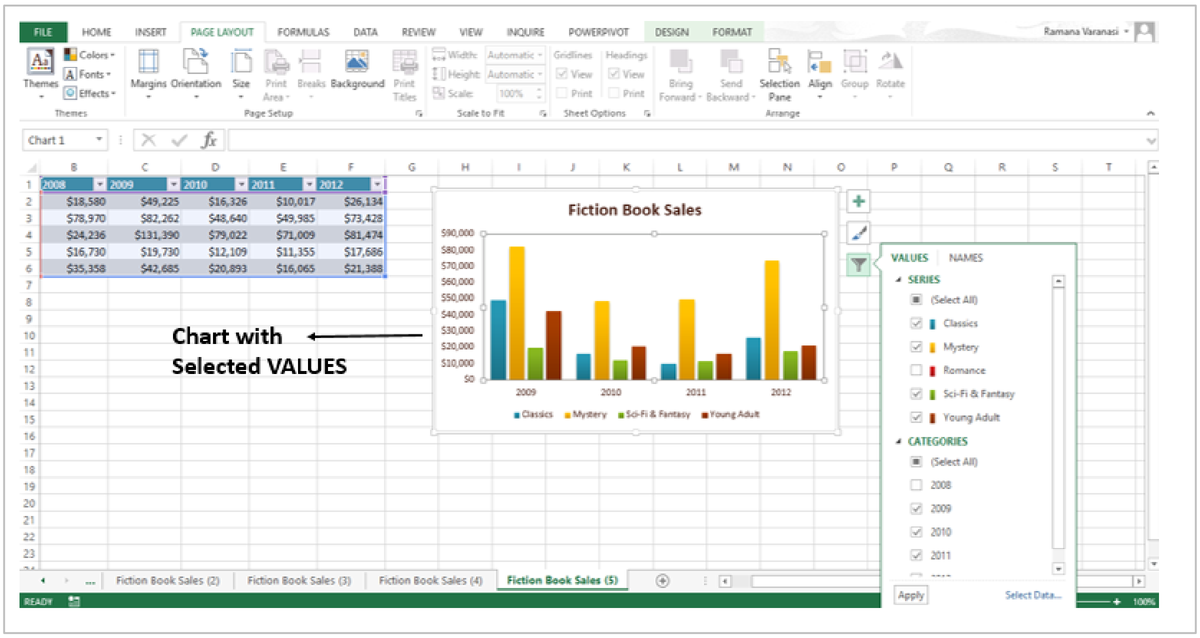


Step 3: Click on **VALUES.** The available **SERIES** and **CATEGORIES** in your Data appear.



Step 4: Select / De-select the options given under **Series** and **Categories**. The chart changes dynamically.

Step 5: After, you decide on the final Series and Categories, click on Apply. You can see that the chart is displayed with the selected data.



2. EXCEL – FORMAT CHARTS

The **Format** pane is a new entry in Excel 2013. It provides advanced formatting options in clean, shiny, new task panes and it is quite handy too.

Step 1: Click on the Chart.

Step 2: Select the chart element (e.g., data series, axes, or titles).

Step 3: Right-click the chart element.

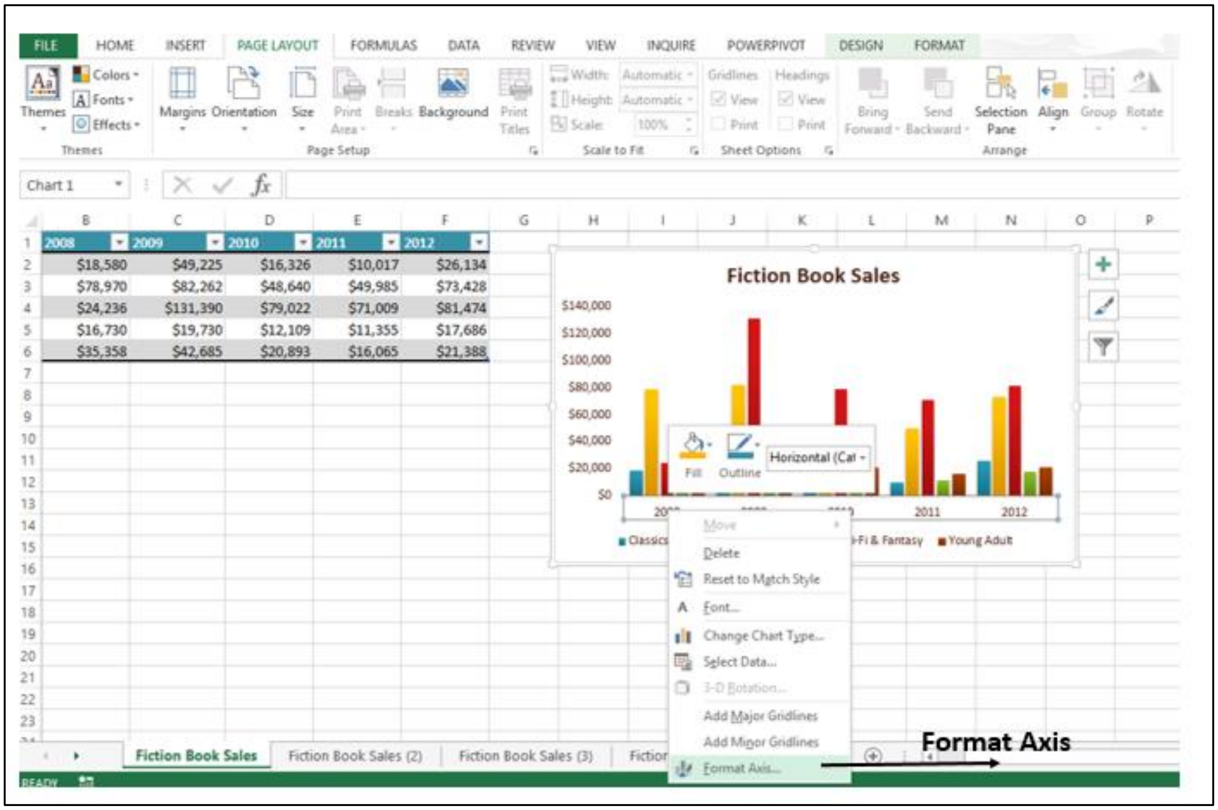
Step 4: Click **Format <chart element>.** The new **Format** pane appears with options that are tailored for the selected chart element.

Format Axis

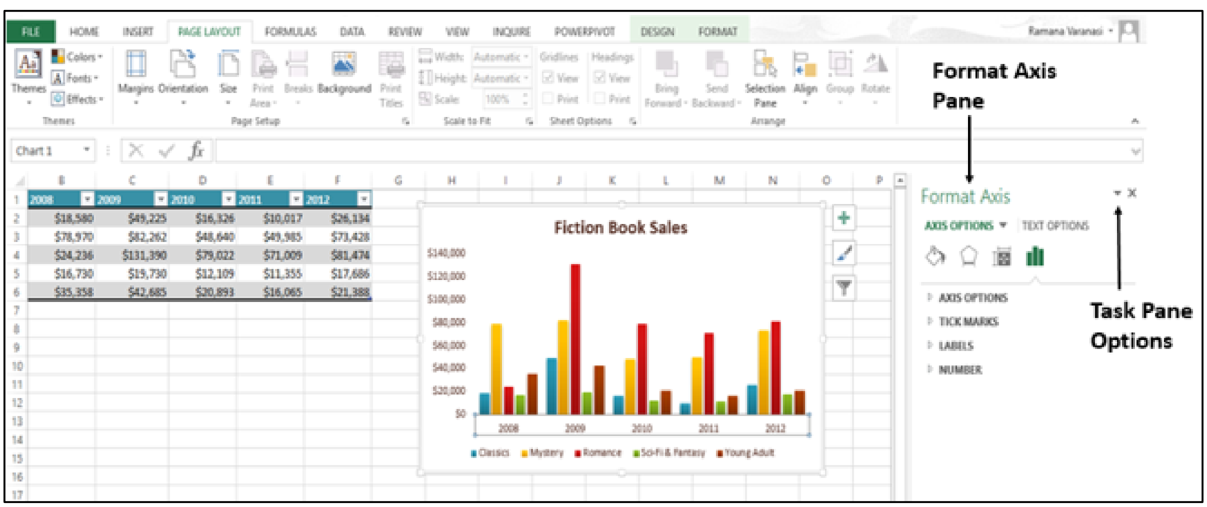
Step 1: Select the **chart axis**.

Step 2: Right-click the chart axis.

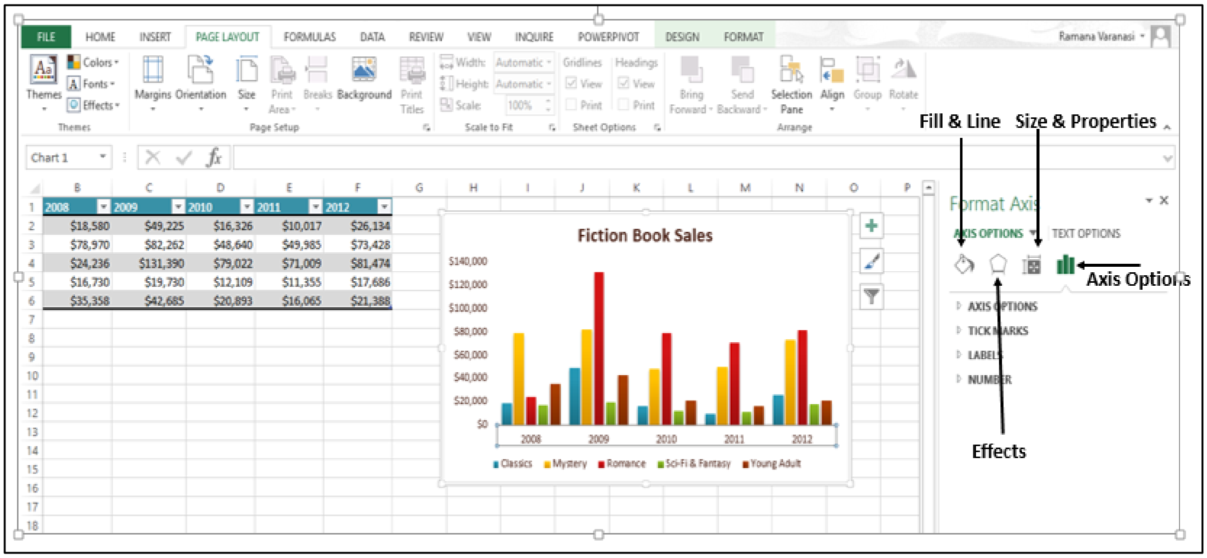
Step 3: Click **Format Axis.** The **Format Axis** task pane appears as shown in the image below.



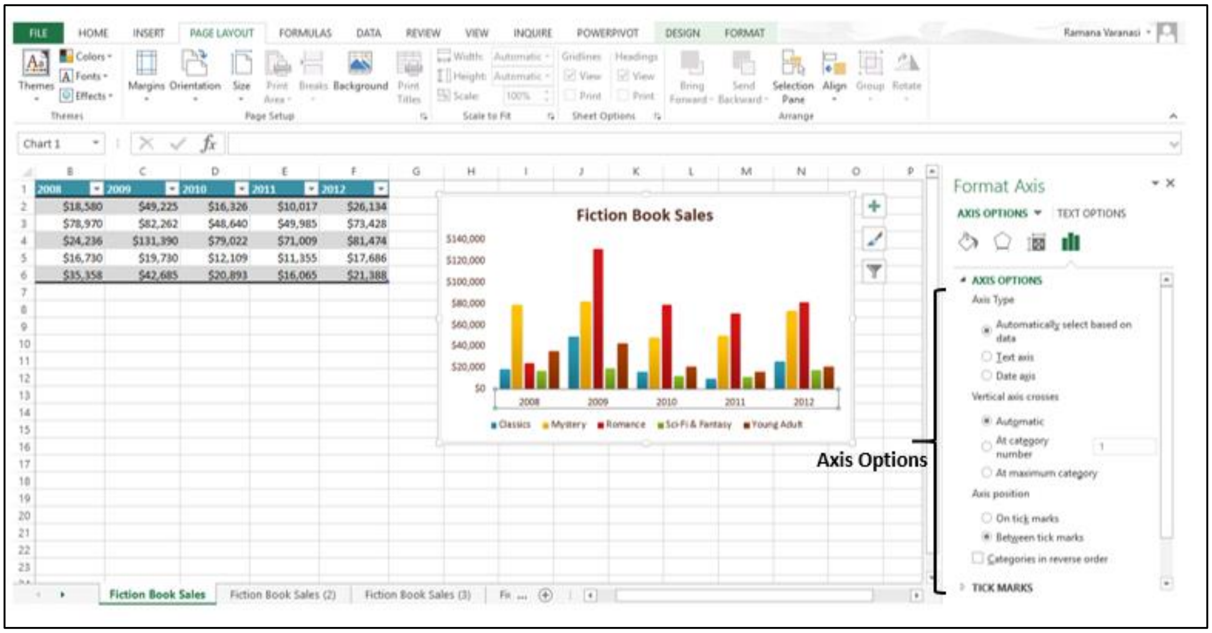
You can move or resize the task pane by clicking on the **Task Pane Options** to make working with it easier.



The small icons at the top of the pane are for more options.

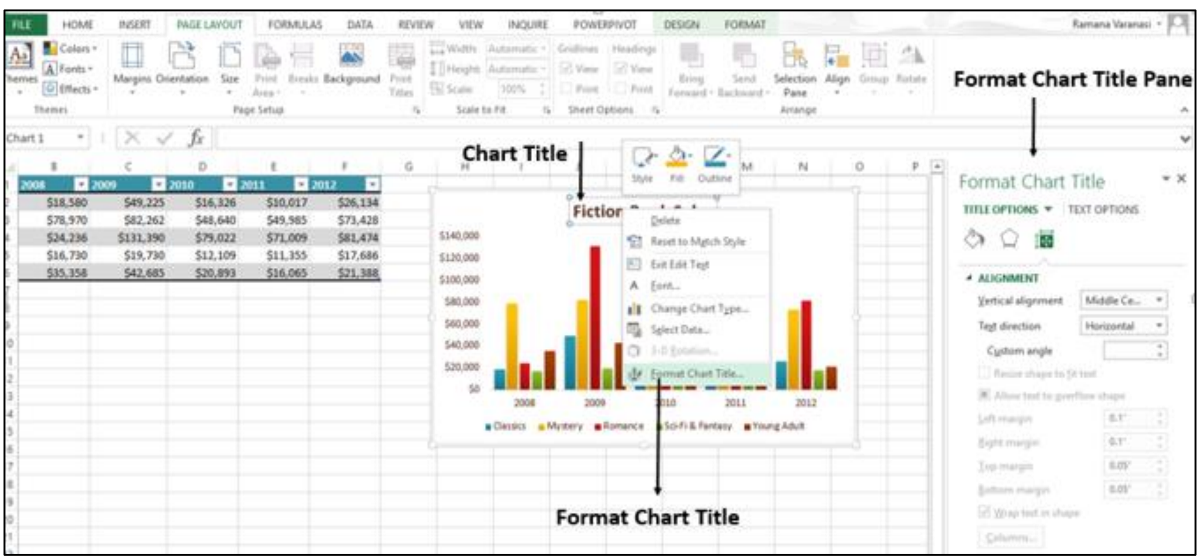


Step 4: Click on **Axis Options.**



Step 5: Select the required **Axis Options**. If you click on a different chart element, you will see that the task pane automatically updates to the new chart element.

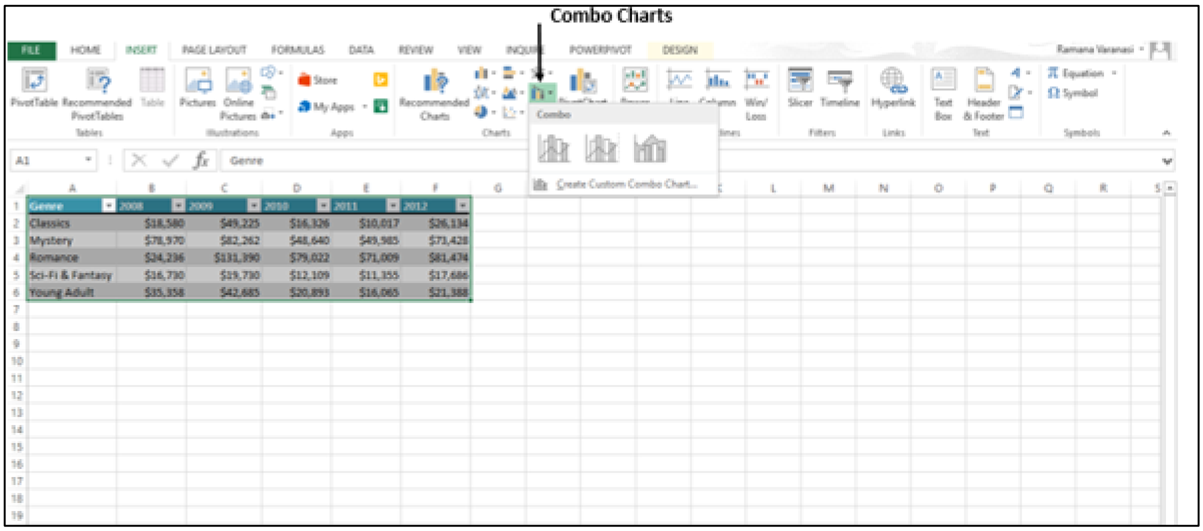
Step 6: Select the **Chart Title**.



Step 7: Select the required options for the **Title**. You can format all the Chart Elements using the **Format Task Pane** as explained for **Format Axis** and **Format Chart Title**.

Provision for Combo Charts

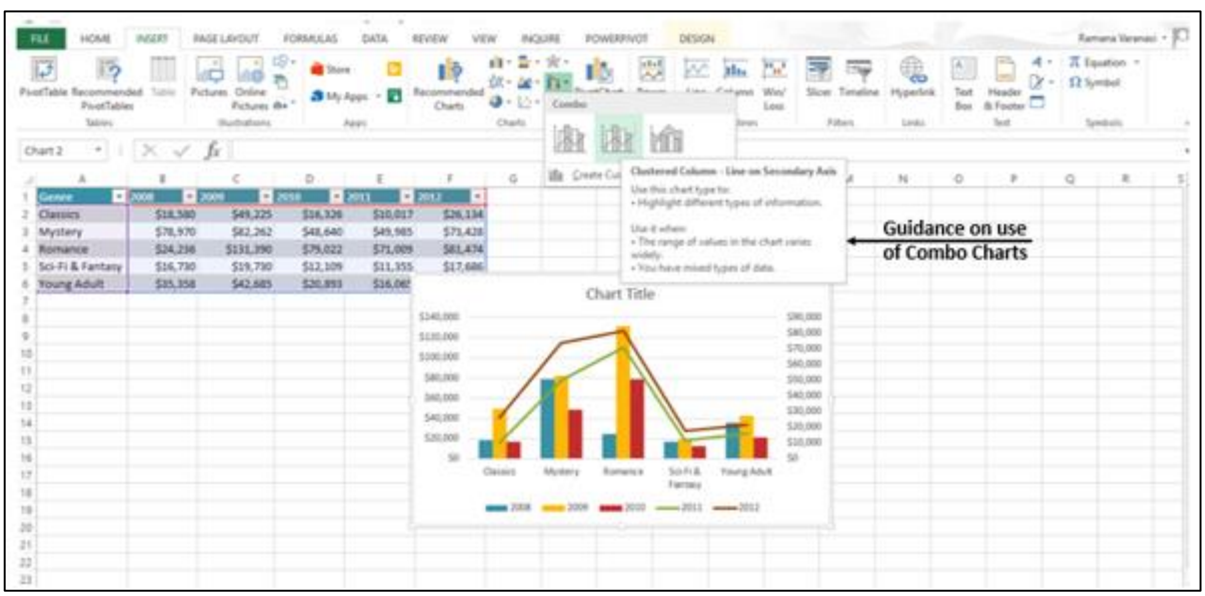
There is a new button for combo charts in Excel 2013.



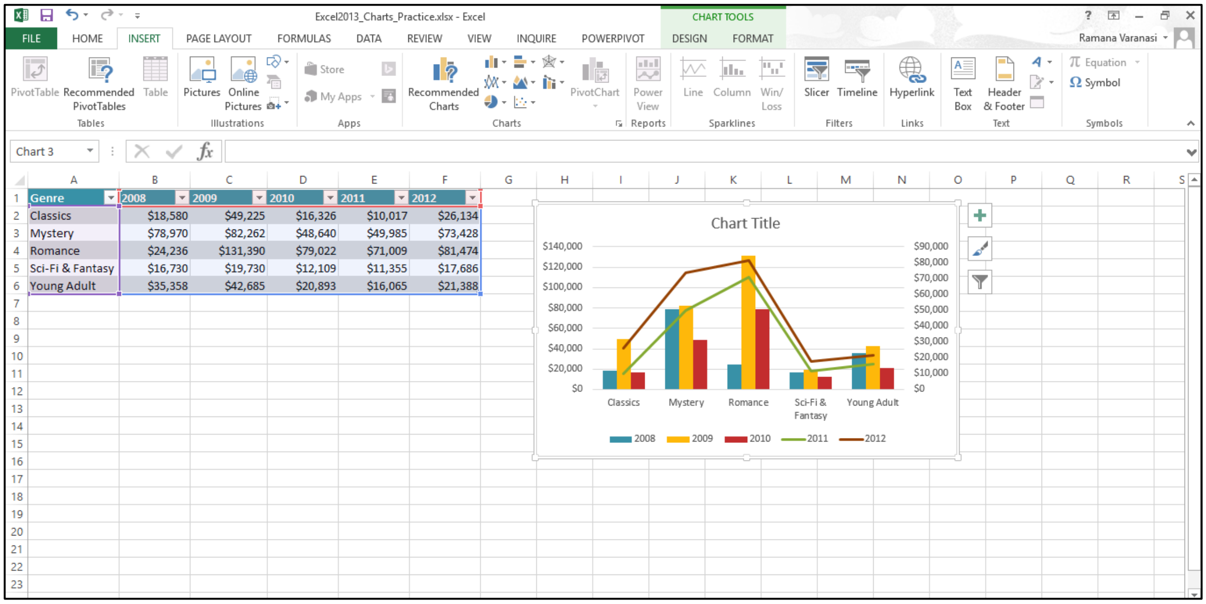
The following steps will show how to make a combo chart.

Step 1: Select the Data.

Step 2: Click on **Combo Charts.** As you scroll on the available Combo Charts, you will see the live preview of the chart. In addition, Excel displays guidance on the usage of that particular type of Combo Chart as shown in the image given below.



Step 3: Select a **Combo Chart** in the way you want the data to be displayed. The Combo Chart will be displayed.

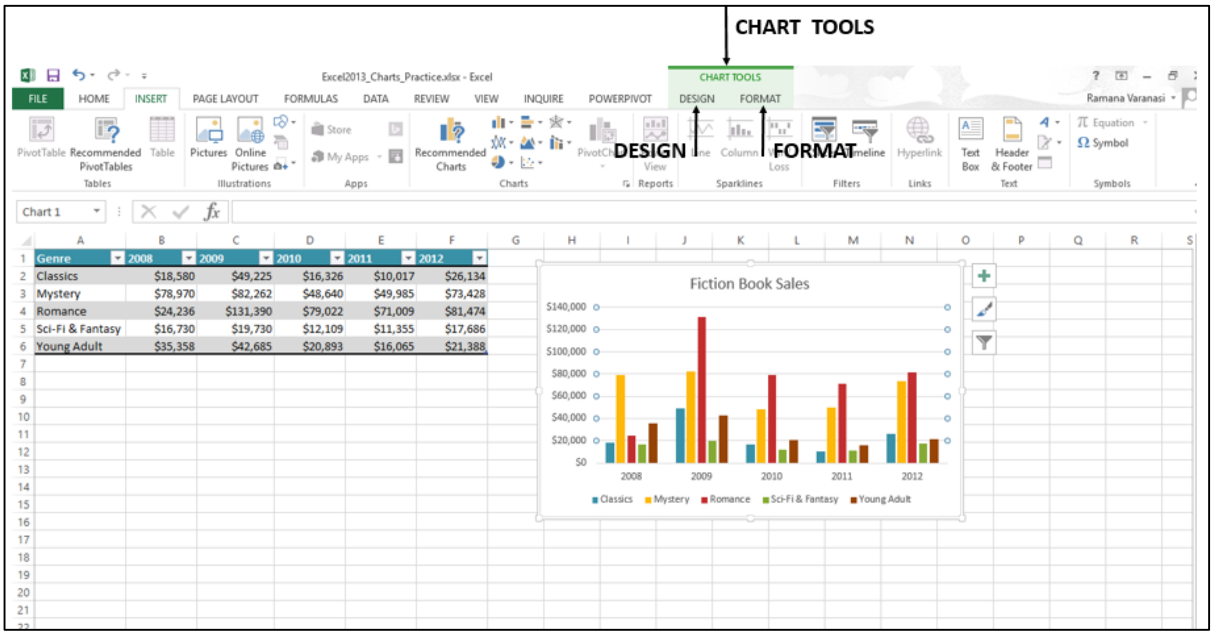


3. EXCEL – CHART DESIGN

Ribbon of Chart Tools

When you click on your Chart, the **CHART TOOLS** tab, comprising of the **DESIGN** and **FORMAT** tabs is introduced on the ribbon.

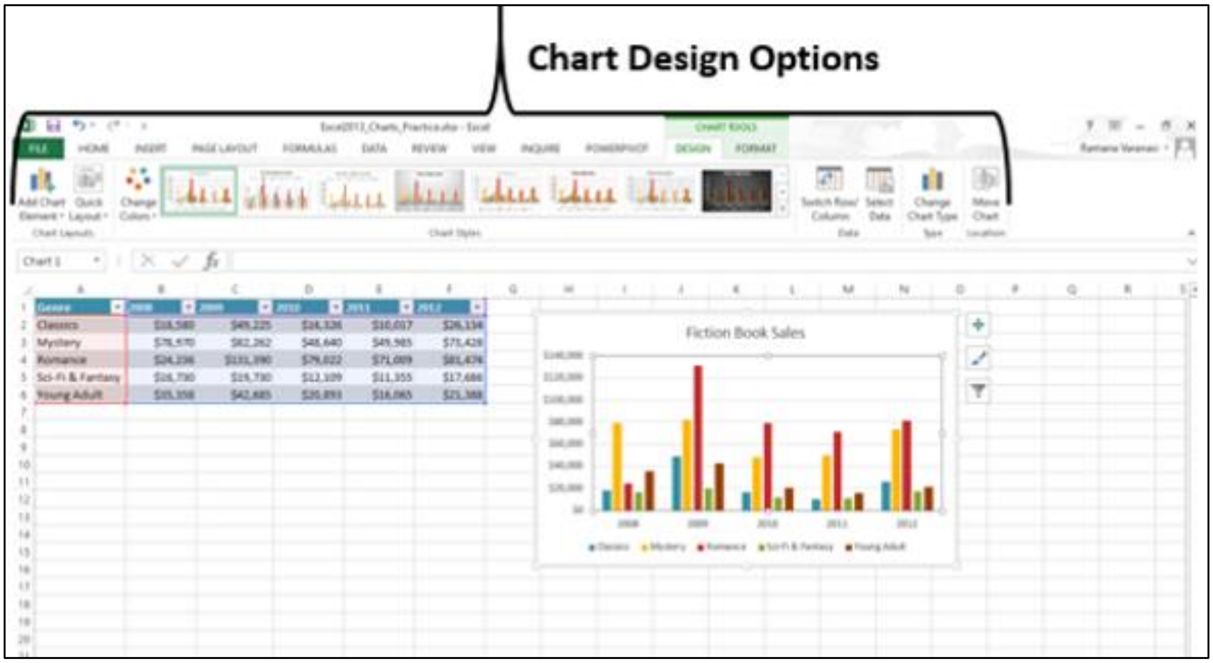
Step 1: Click on the Chart. **CHART TOOLS** with the **DESIGN** and **FORMAT** tabs will be displayed on the ribbon.



Let us understand the functions of the **DESIGN** tab.

Step 1: Click on the chart.

Step 2: Click on the **DESIGN** tab. The **Ribbon** now displays all the options of **Chart Design**.



The first button on the ribbon is the **Add Chart Element,** which is the same as the **Chart Elements,** given at the upper right corner of the Charts as shown below.